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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,357	02/15/2005	Bing Zhao	005149.00003	7412
22907 7590 07/07/2009 BANNER & WITCOFF, LTD. 1100 13th STREET, N.W. SUITE 1200 WASHINGTON, DC 20005-4051				
EXAMINER				
HERRING, BRENT W				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/500,357

**Applicant(s)**

ZHAO, BING

**Examiner**

BRENT W. HERRING

**Art Unit**

3633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 May 2009.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21-47 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 21-47 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 19 March 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 32, 42 and 47 are objected to because of the following informalities: proper names including, but not limited to Yixue, Taiji, and Gua should not be used in the claims. Their definitions are not commonly known to a person of ordinary skill in the art and a proper definition is not provided in the specification. Appropriate correction is required.
2. Although applicant claims that a person of ordinary skill in the art in Chinese culture would have common knowledge of the expressions, this does not apply to the ordinary skill in the art of the building trades in the United States of America. Wherein the patent is being applied for in the United States, the language of the claims should be understandable to a person of ordinary skill in the art in the country of pending application.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 112***

4. Claims 21-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are replete with alternative language (i.e. includes an aboveground part, an underground part, or both; a top roof, side(s), or both, etc.) rendering the scope of the claim indeterminate.

***Claim Rejections - 35 USC § 101***

5. Claims 21-46 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Specifically, applicant is claiming "natural ecological structures" including plants and animals. Plants and animals qualify as natural phenomenon.

***Claim Rejections - 35 USC § 102***

6. Claims 21-22, 32, 42-43 and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Whitaker, *Agricultural Buildings and Structures*, or in the alternative under 35 U.S.C. 103(a) obvious over Whitaker, *Agricultural Buildings and Structures* in view of Placencia, U.S. 5,862,544 and Albers, U.S. Patent 4,008,689.

7. Claims 21-22, 32, and 42-43 are rejected under 35 U.S.C. 102(b) as anticipated by Whitaker, *Agricultural Buildings and Structures* or, in the alternative, under 35 U.S.C. 103(a) as obvious over Whitaker, *Agricultural Buildings and Structures* in view of Placencia, U.S. 5,862,544 and Albers, U.S. Patent 4,008,689.

Regarding claim 21:

Whitaker discloses a multifunctional tridimensional combined ecological architecture having at least one building (see Part I starting on p. 3) comprising:

- an ecological structure capable of use for organisms,
- a natural ecological structure,
- a place capable of use for human culture activity,
- an organism production system,
- cooperating systems;

wherein said at least one building has a tridimensional structure and includes an aboveground part (see p. 9), an underground part, wherein a top roof, sides wherein the top roof, sides, or both are partly or completely transparent (wherein the sides have windows, windows are inherently transparent, see p. 436), openable and closable, or both;

wherein said natural ecological structure and said ecological structures for organisms are provided anywhere in or on said at least one building, and include plants, organisms, water resource, and human cultural sights therein (see Chapter 21);

said organism production systems comprising cultivation devices, processing devices, storing and transferring devices, and marketing devices (see Ch. 21);

said cooperating systems comprising at least a part of a water recycling system (plants inherently perform these functions, furthermore, examiner takes official notice that water recapture and treatment is known to persons of ordinary skill in the art; it would have been obvious to a person of ordinary skill in the art at

the time of the invention to use water recycling systems because water delivery and treatment from a central plant uses an excessive amount of energy that causes it to be comparatively inefficient and less economical than water recapture and treatment on location, as taught by Placencia, U.S. Patent 5,862,544), electrical (see Ch. 14), ventilation (see Ch. 16), temperature and humidity regulating (see Ch. 16, p. 295), light transmitting (greenhouses comprised of glass inherently refract light and also allow for light transmission there through), methane (see p. 339 and p. 394, examiner takes official notice that if methane is contained and removed it is obvious to a person of ordinary skill in the art to store it in tanks because methane is a source of energy and as such, it is desirable to capture it for use, as taught by Albers, U.S. Patent 4,008,689), illumination and control systems (p. 454).;

said at least one building and systems combined in a manner of **part or complete combination**.

Should applicant argue that Whitaker does not disclose ALL of the elements of the claimed combination, note that the claim recites, "said at least one building and systems combined in a manner of part of complete combination," and Whitaker at the least discloses the combination in part.

Regarding claim 22:

Whitaker discloses claim 21, wherein

said water recycling system comprises a precipitation gathering and

purifying device, a sewage water recuperating and classification and purifying device, an external water resource input device, a device capable of filtering and purifying water from air, a sanitation device, a water reservoir device and a water supply device;

said electrical system comprising a power generation and storing device, a power transmission and power supply device, a voltage transformation and power distribution device;

said ventilation system comprising an air input/output device, an oxygen supply device, and air purifying and recycling device and a sanitation device;

said temperature and humidity regulation system comprising a temperature regulating device and a humidity regulating device;

said light transmitting system comprising a light refractive device and a light transmitting device;

said methane system comprising a methane tank and a methane storing and utilization device; said control system comprising automatic, manual or both control mechanism for the systems; and

wherein the place able to be used for human culture activity comprises a place able to be used for resting and a place for sports and cultural activities.

Regarding claim 32:

Whitaker discloses claim 21, and further discloses wherein the building is combinable in at least one of various types of forms listed. Refer to the figures throughout Whitaker.

Regarding claims 42 and 47:

Whitaker discloses claim 21, wherein said ecological structure capable of use for organisms and the natural ecological structure comprises at least one of an ecological structure of ecological wall type, and tridimensional warm house structure.

Regarding claim 43:

Whitaker discloses claim 21, wherein said place capable of use for human cultural activity comprises a place capable of use for office, commerce, sports, culture, factories, schools, research, storage, sanatorium, stations, and recreation.

It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations insofar as the prior art apparatus is capable of being used in the manner as stated by the limitations of the claim.



***Claim Rejections - 35 USC § 103***

8. Claims 23-31, 33-41, and 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitaker, *Agricultural Buildings and Structures*.

Regarding claims 23-31, 33-41, and 44-46:

Whitaker discloses claims 22 and 32, but does not expressly disclose each and every limitation of the claims regarding the water filtration device, the theft alarm system, the roads and bridges, solar power devices, organisms and the other broad scope of limitations.

However, Examiner takes official notice that it is old and well known to use each of the systems and devices claimed by applicant in both combination and as a stand alone functioning unit. Support for this assertion includes college campuses, farms and plantations which are well known to persons of ordinary skill in the art. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have installed in and around a system of buildings each of these well-known devices and systems.

The motivation to combine each of these systems would have been to form a sustainable location that meets all of a community's needs.

***Response to Arguments***

9. Applicant's arguments filed 29 April 2009 have been fully considered but they are not persuasive.

10. Regarding applicant's arguments drawn to the objections of the claims, applicant claims that a person of ordinary skill in the art in Chinese culture would have common knowledge of the expressions, examiner maintains that this does not apply to the ordinary skill in the art of the building trades in the United States of America. Wherein the patent is being applied for in the United States, the language of the claims should be understandable to a person of ordinary skill in the art in the country of pending application.

11. Regarding applicant's arguments drawn to the rejection of the claims in view of Whitaker, applicant argues that Whitaker does not disclose each and every element of the claims. However, Whitaker does disclose each and every element of the claims as addressed in the 35 USC 102(b) rejections above. Examiner has provided, in the alternative, a 35 USC 103(a) rejection for further reinforcement in rejection of the claims.

12. Applicant further makes arguments drawn to the intended use of the spaces of Whitaker. Applicant is reminded that it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations insofar as the prior art apparatus is capable of being used in the manner as stated by the limitations of the claim.

13. Applicant is further reminded that claims in a pending application should be given their **broadest reasonable interpretation**. In the instant case, the invention as claimed is combining various types of buildings, devices, and systems into an ecological

architecture. "Architecture" constitutes buildings collectively as defined by the *Random House Unabridged Dictionary*. As asserted by the rejection of the claims above, both a college campus and a farm teach multifunctional tridimensional combined ecological architectures having one or more buildings as claimed by applicant.

14. By applicant's own admission, the large scale of complex ecological architecture according to the present invention is a systematic invention. These features are disclosed by Whitaker as well as by the systematic structure of college campuses and farms throughout the world.

15. Regarding applicant's argument that college campuses, farms and plantations do not meet the limitations of the claims, examiner maintains that the claims are provided the broadest reasonable interpretation and that the limitations with regards to the intended use of the space are met wherein the prior art is capable of performing the task set forth in the language of the claims. Examiner maintains that *Whitaker*, college campuses, farm, and plantations DO teach combining the elements defined in the claims.

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENT W. HERRING whose telephone number is (571)270-3661. The examiner can normally be reached on Monday-Thursday, 8:00AM-5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard E. Chilcot can be reached on (571)272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. W. H./  
Examiner, Art Unit 3633

/Robert J Canfield/  
Supervisory Patent Examiner, Art Unit 3635